

Application No. 09/147,036
Reply to Office Action Dated March 24, 2004
Amendment Dated July 26, 2004

Amendments to the Specification:

Please replace the paragraph beginning at page 16, line 1 with the following amended paragraph:

Figure 6. DNA sequences of the oligonucleotides used (SEQ ID NOS: 1-5)

Please replace the paragraph beginning at page 16, line 10 with the following amended paragraph:

Figure 7. Depiction of the membrane-integrated part of the AIDA-I autotransporter from *Escherichia coli* (SEQ ID NOS: 6 and 7). (Benz and Schmidt, Mol. Microbiol. 6 (1992), 1539-1546).

Please replace the paragraph beginning at page 16, line 15 with the following amended paragraph:

Figure 8. Depiction of the membrane-integrated part of the BrkA autotransporter from *Bordetella pertussis* (SEQ ID NOS: 8 and 9). (Fernandez and Weiss, Infect Immun.. 62 (1994), 4727-4738).

Please replace the paragraph beginning at page 16, line 20 with the following amended paragraph:

Figure 9. Depiction of the membrane-integrated part of the Hap autotransporter from *Haemophilus influenzae* (SEQ ID NOS: 10 and 11). (StGeme et al., Mol. Microbiol. 14 (1994), 217-233).

Please replace the paragraph beginning at page 16, line 25 with the following amended paragraph:

Figure 10. Depiction of the membrane-integrated part of the Hsr autotransporter from *Helobacter mustelae* (SEQ ID NOS: 12 and 13). (O'Toole et al., Mol. Microbiol 11 (1994), 349-361).

Please replace the paragraph beginning at page 16, line 30 with the following amended paragraph:

Figure 11. Depiction of the membrane-integrated part of the IcsA autotransporter from *Shigella flexneri* (SEQ ID NOS: 14 and 15). (Goldberg et al., J. Bacteriol 175 (1993), 2189-2196).

Please replace the paragraph beginning at page 16, line 35 with the following amended paragraph:

Figure 12. Depiction of the membrane-integrated part of the Prn (outer membrane protein P96) autotransporter from *Bordetella pertussis* (SEQ ID NOS: 16 and 17). (Charles et al., Proc. Natl. Acad. Sci. USA 86 (1989), 3554-3558).

Please replace the paragraph beginning at page 17, line 2 with the following amended paragraph:

Figure 13. Depiction of the membrane-integrated part of the Prn (P70 pertactin) autotransporter from *Bordetella parapertussis* (SEQ ID NOS: 18 and 19). (Li et al., J. Gen. Microbiol. 138 (1992), 1697-1705).

Please replace the paragraph beginning at page 17, line 8 with the following amended paragraph:

Figure 14. Depiction of the membrane-integrated part of the 190 kDA cell surface antigen autotransporter from *Rickettsia rickettsii* (SEQ ID NOS: 20 and 21). (Anderson et al., unpublished, Genbank Accession No. M31227).

Please replace the paragraph beginning at page 17, line 14 with the following amended paragraph:

Figure 15. Depiction of the membrane-integrated part of the SpaP autotransporter from *Rickettsia prowazekii* (SEQ ID NOS: 22 and 23). (Carl et al., Proc. Natl. Acad. Sci. USA 87 (1990), 8237-8241).

Application No. 09/147,036
Reply to Office Action Dated March 24, 2004
Amendment Dated July 26, 2004

Please replace the paragraph beginning at page 17, line 19 with the following amended paragraph:

Figure 16. Depiction of the membrane-integrated part of the 120 kilodalton outer membrane protein (rOmp B) autotransporter from *Rickettsia rickettsii* (SEQ ID NOS: 24 and 25). (Gilmore et al., Mol. Microbiol. 5 (1991), 2361-2370).

Please replace the paragraph beginning at page 17, line 25 with the following amended paragraph:

Figure 17. Depiction of the membrane-integrated part of the SlpT autotransporter from *Rickettsia typhi* (SEQ ID NOS: 26 and 27). (Hahn et al., Gene 133 (1993), 129-133).

Please replace the paragraph beginning at page 17, line 30 with the following amended paragraph:

Figure 18. Depiction of the membrane-integrated part of the SepA autotransporter from *Shigella flexneri* (SEQ ID NOS: 28 and 29). (Benjellou-Toumi et al., Mol. Microbiol. 17 (1995), 123-135).

Please replace the paragraph beginning at page 17, line 35 with the following amended paragraph:

Application No. 09/147,036
Reply to Office Action Dated March 24, 2004
Amendment Dated July 26, 2004

Figure 19. Depiction of the membrane-integrated part of the Ssp autotransporter from *Serratia marcescens* RH1 (SEQ ID NOS: 30 and 31). (Roh, unpublished, Genbank Accession No. X59719).

Please replace the paragraph beginning at page 18, line 1 with the following amended paragraph:

Figure 20. Depiction of the membrane-integrated part of the Ssp autotransporter from *S. marcescens* IFO-3046, clone pSP11 (SEQ ID NOS: 32 and 33). (Yanagida, et al. J. Bacteriol. 166 (1986), 937-944).

Please replace the paragraph beginning at page 18, line 7 with the following amended paragraph:

Figure 21. Depiction of the membrane-integrated part of the Ssp-h1 autotransporter from *Serratia. marcescens*, strain IFO3046 (SEQ ID NOS: 34 and 35). (Onishi and Horinouchi, unpublished, Genbank Accession No. D78380).

Please replace the paragraph beginning at page 18, line 13 with the following amended paragraph:

Figure 22. Depiction of the membrane-integrated part of the Ssp-h2 autotransporter from *Serratia. marcescens*, strain IFO3046 (SEQ ID NOS: 36 and 37). (Onishi and Horinouchi, unpublished, Genbank Accession No. D78380).

Application No. 09/147,036
Reply to Office Action Dated March 24, 2004
Amendment Dated July 26, 2004

Please replace the paragraph beginning at page 18, line 19 with the following amended paragraph:

Figure 23. Depiction of the membrane-integrated part of the Tsh autotransporter from *Escherichia coli* (SEQ ID NOS: 38 and 39). (Provence et al. 1994, Infect. Immun. 62 (1994), 1369-1380).

Please replace the paragraph beginning at page 18, line 24 with the following amended paragraph:

Figure 24. Depiction of the membrane-integrated part of the VacA autotransporter from *Helicobacter pylori* (SEQ ID NOS: 40 and 41). (Schmitt and Haas, Mol. Microbiol. 12 (1994), 307-319). At least 3 other forms of VacA are also known in *Helicobacter pylori*, but they differ in the stated region to an inconsiderable extent.